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| EXAMINER | |
|---|---|
| COLAN, GIOVANNA B | |
| **ART UNIT** | **PAPER NUMBER** |
| 2162 | |
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**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

| Office Action Summary | Application No. | Applicant(s) | |
|---|---|---|---|
| | 10/722,987 | MOSESCU, LEONARD CIPRIAN | |
| | Examiner | Art Unit | |
| | GIOVANNA COLAN | 2162 | |

*-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --*

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE *3* MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

1)☒ Responsive to communication(s) filed on *24 June 2009*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

4)☒ Claim(s) *1-53* is/are pending in the application.

4a) Of the above claim(s) *2-5,8-24,26-29,32-36,44,48 and 49* is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *, 6-7, 25, 30-31, 37-43, 45-47, and 50-53* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

**Application Papers**

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

## DETAILED ACTION

1. This action is issued in response to applicant filed request for continued examination (RCE) on 06/24/2009.

2. Claims 1, 25, 37, 45, and 50 have been amended. Claim 53 was added. Claims 2-5, 8-24, 26-29, 32-36, 44, and 48-49 were canceled.

3. Claims 1, 6-7, 25, 30-31, 37-43, 45-47, and 50-53 are pending in this application.

### *Continued Examination Under 37 CFR 1.114*

4. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on 10/11/2006 has been entered.

### *Election/Restrictions*

5. For purposes of clarification, the examiner submits that claims 37 – 43 (see: Office Action dated 03/24/2009) were shifted and incorporated to elected invention I (see: restriction requirement dated 09/04/2008). Claims 37 – 43 are discussed in this Office Action below.

### *Response to Arguments*

6. Applicant's arguments with respect to amended claims 1, 25, 37, 45, and 50 have been considered but are moot in view of the new ground(s) of rejection.

### *Claim Rejections - 35 USC § 103*

7. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

8. This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to

consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

9. Claims 1, 6-7, 25, 30-31, 37-43, 45-47, and 50-52 are rejected under 35 U.S.C. 103(a) as being unpatentable over Grover et al. (Grover hereinafter) (US 5,818,437) in view of Siitonen et al. (Siitonen hereinafter) (US 6,049,796).

Regarding Claim 1, Grover discloses a method for using a limited input keypad to search for data contained in an electronic device, the limited input keypad comprising a plurality of keys, each of which is an alphanumeric key that is identifiable by a unique number and a corresponding subset of an alphabet, the method comprising:

storing a plurality of text strings and a corresponding plurality of numeric strings, wherein each of the plurality of numeric strings is formed by matching each individual letter contained in a text string with a corresponding number located on the same alphanumeric key (Fig. 10, table “Tag Content”, and Col. 2, lines 35 – 39, 45 – 51, and 56 – 67, Col. 12, lines 43 – 49, Grover);

receiving a first portion of a query via activation of a first alphanumeric key by a user of the limited input keypad (Col. 4, lines 34 – 40, Grover);

searching the stored plurality of numeric strings for identifying a first set of numeric strings, each which has in a first position, a first number that corresponds to the unique number on the activated first alphanumeric key (Col. 4, lines 46 – 52, and 61 – 64, Grover);

using the first set of numeric strings to identify a corresponding first set of text strings, the first set of text strings including a desired text string that is an object of the search (Col. 4, lines 46 – 52, and 61 – 64, Grover);

receiving a second portion of the query via activation of a second alphanumeric key by the user of the limited input keypad (Col. 5, lines 22 – 25, Grover);

performing a further search on the plurality of numeric strings for identifying a second set of numeric strings, each of which has in the first position, the first number that corresponds to the unique number on the activated first alphanumeric key, and in an adjacent position, a second number that corresponds to the unique number on the activated second alphanumeric key (Col. 1, lines 44 – 53, Grover); and

Grover also discloses: using the second set of numeric strings to identify a corresponding second set of text string (Col. 1, lines 53 – 58, Grover). However, Grover does not expressly disclose: wherein the second set of text strings a) contains a fewer number of text strings than the first set of text strings. On the other hand, Siitonen discloses: using the second set of numeric strings to identify a corresponding second set of text string wherein the second set of text strings a) contains a fewer number of text strings than the first set of text strings, and b) includes the desired text strings (Col. 2, lines 51 – 67, Siitonen). It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify Grover by incorporating the step including: fewer number of text strings than the first set of text strings, in the same conventional manner as disclosed by Siitonen's system. Skilled artisan would have found it motivated to use such a modification in order to allow the user to refine the search by

adding additional search criteria until finally producing for viewing a minimum number of data base records matching the search criteria (Col. 2, lines 51 – 56, Siitonen).

Regarding Claim 7, the combination of Grover in view of Siitonen (Grover/Siitonen hereinafter) discloses a method, wherein the storing as a table comprises:

storing each of the plurality of text strings in respective rows in a first column of the table (Fig. 10, table "Tag Content", and Col. 2, lines 35 – 39, 45 – 51, and 56 – 67, Col. 12, lines 43 – 49, Grover); and

storing each of the corresponding plurality of numeric strings in corresponding respective rows in a second column of the table (Fig. 10, table "Tag Content", and Col. 2, lines 35 – 39, 45 – 51, and 56 – 67, Col. 12, lines 43 – 49, Grover).

Regarding Claim 25, Grover/Siitonen discloses a data searching system, comprising:

a limited input keypad comprising a plurality of keys, each of which is an alphanumeric key identifiable by a unique number and a corresponding subset of an alphabet (Fig. 1, item 202, Grover);

a storage device for storing a plurality of text strings and a corresponding plurality of numeric strings; wherein each of the plurality of numeric strings is formed by matching each individual letter contained in a text string with a corresponding number

located on the same alphanumeric key (Fig. 10, table "Tag Content", and Col. 2, lines 35 – 39, 45 – 51, and 56 – 67, Col. 12, lines 43 – 49, Grover);

a display device for displaying data associated with a desired text string (Fig. 3, item 107, Grover); and

a processor configured to perform a search on the stored plurality of numeric strings in response to a query that is initiated by activation of a first alphanumeric key followed by activation of a second alphanumeric key, and to provide to the display, a first search result comprising a first set of text strings that is identified by detecting a first set of numeric strings, each of which contains the unique number of the activated first alphanumeric key in a first position of the numeric string, followed by providing to the display, a second search result comprising a second set of text strings that is identified by detecting a second set of numeric strings, each of which contains the unique number of the activated first alphanumeric key in the first position of the numeric string and the unique number of the second alphanumeric key in a second position of the numeric string (Col. 1, lines 44 – 53, Grover), and wherein the second set of text strings a) contains a fewer number of text strings than the first set of text strings, and b) includes the desired text string (Col. 1, lines 44 – 53, Grover; and Col. 2, lines 51 – 67, Siitonen).

Regarding Claim 30, Grover/Siitonen discloses a system, wherein the storage device comprises a table for storing a mapping between the plurality of text strings and the corresponding plurality of numeric strings (Fig. 10, table "Tag Content", Grover).

Regarding Claim 30, Grover/Siitonen discloses a system, wherein the table comprises:

rows in a first column of the table for storing each of the plurality of text strings (Fig. 10, table "Tag Content", and Col. 2, lines 35 – 39, 45 – 51, and 56 – 67, Col. 12, lines 43 – 49, Grover); and

corresponding rows in a second column of the table for storing each of the plurality of numeric strings (Fig. 10, table "Tag Content", and Col. 2, lines 35 – 39, 45 – 51, and 56 – 67, Col. 12, lines 43 – 49, Grover).

Regarding Claim 37, Grover/Siitonen discloses a method to search for data contained in an electronic device by recognizing a string of letters wherein each letter contained in the string of letters is inputtable into the electronic device via a limited input keypad, the limited input keypad comprising at least one alphanumeric key that combinedly represents a unique number and a corresponding subset of an alphabet, the method comprising:

populating a lookup table by mapping the string of letters to a string of numbers, the mapping (Col. 4, lines 46 – 52, Grover) comprising:

identifying depression of a first alphanumeric key on the keypad, wherein the first alphanumeric key is selected to correspond to a first letter in the string of letters (Col. 4, lines 34 – 40, and Col. 6, lines 19 – 23, Grover; and Col. 6, lines 59 – 67, Siitonen);

storing a first number that is the same as the unique number associated with the depressed first alphanumeric key (Fig. 10, table "Tag Content", and Col. 2, lines 35 – 39, 45 – 51, and 56 – 67, Col. 12, lines 43 – 49, and Col. 6, lines 33 – 39, Grover; and Col. 7, lines 8 – 10, Siitonen);

identifying depression of a second alphanumeric key on the keypad, wherein the second alphanumeric key is selected to correspond to a second letter in the string of letters (Col. 5, lines 22 – 25, Grover; and Col. 6, lines 59 – 67, Siitonen); and

storing a second number that is the same as the unique number associated with the depressed second alphanumeric key, wherein the second number is stored along with the first number, and wherein the combination of the first and second numbers comprises the string of numbers that enables a subsequent number search for recognizing a subsequent entry of the string of letters via the limited input keypad, and locating thereon, data associated with the recognized string of letters (Fig. 10, table "Tag Content", and Col. 2, lines 35 – 39, 45 – 51, and 56 – 67, Col. 12, lines 43 – 49, Grover; and Col. 7, lines 8 – 10, Siitonen).

Regarding Claim 38, Grover/Siitonen discloses a method, further comprising:

completing the mapping by storing each of the numbers corresponding to each of the letters in the string of letters (Fig. 10, table "Tag Content", and Col. 2, lines 35 – 39, 45 – 51, and 56 – 67, Col. 12, lines 43 – 49, Grover); and

using the lookup table for recognizing a subsequent entry of the string of letters into the limited input keypad (Col. 4, lines 46 – 52, Grover), the recognizing comprising:

identifying subsequent depression of the first alphanumeric key on the keypad (Col. 4, lines 34 – 40, Grover);

searching the lookup table to locate the first number associated with the first alphanumeric key (Col. 4, lines 46 – 52, and 61 – 64, Grover);

identifying subsequent depression of the second alphanumeric key on the keypad (Col. 5, lines 22 – 25, Grover);

searching the lookup table to locate the second number associated with the second alphanumeric key (Col. 1, lines 44 – 53, Grover); and

recognizing from the combination of first and second numbers, the combination of the first and second letters that comprise the string of letters (Fig. 10, table "Tag Content", and Col. 2, lines 35 – 39, 45 – 51, and 56 – 67, Col. 12, lines 43 – 49, Grover).

Regarding Claim 39, Grover/Siitonen discloses a method, further comprising:

displaying the combination of the first and second letters to indicate the presence of a potential match in the lookup table (Fig. 7F, items 732 and 733; and Col. 2, lines 35 – 39, 45 – 51, and 56 – 67, Col. 12, lines 43 – 49, Grover).

Regarding Claim 40, Grover/Siitonen discloses a method, further comprising:

displaying all letters in the string of letters upon recognizing an exact match in the string of numbers contained in the lookup table (Fig. 7k, item 746, Grover).

Regarding Claim 41, Grover/Siitonen discloses a method, further comprising:

populating the lookup table by mapping a plurality of additional letter strings to a corresponding plurality of additional number strings (Fig. 10, table "Tag Content", and Col. 2, lines 35 – 39, 45 – 51, and 56 – 67, Col. 12, lines 43 – 49, Grover).

Regarding Claim 42, Grover/Siitonen discloses a method, further comprising:

displaying at least one letter from one of the additional letter strings as a potential match during the subsequent entry of the string of letter into the limited input keypad (Col. 5, lines 22 – 25, Grover).

Regarding Claim 43, Grover/Siitonen discloses a method, further comprising:

displaying duplicate matches that exist in the lookup table (Fig. 5, items 501 - 504, Grover).

Regarding Claim 45, Grover/Siitonen discloses a method, wherein the desired text string is a name of a contact stored in the electronic device (Col. 2, lines 16 – 29, Siitonen).

Regarding Claim 46, Grover/Siitonen discloses a method, wherein the data associated with the name of the contact comprises at least one of a) a phone number, and b) an address (Fig. 10, table "Tag Content", and Col. 2, lines 35 – 39, 45 – 51, and 56 – 67, Col. 12, lines 43 – 49, Grover; and Col. 2, lines 16 – 29, Siitonen).

Regarding Claim 47, Grover/Siitonen discloses a method, wherein the plurality of text strings corresponds to names of a contact list stored in the electronic device, and the data associated with each of the names is stored together with the names in the table (Fig. 10, table "Tag Content", and Col. 2, lines 35 – 39, 45 – 51, and 56 – 67, Col. 12, lines 43 – 49, Grover; and Col. 2, lines 16 – 29, Siitonen).

Regarding Claim 50, Grover/Siitonen discloses a system, wherein the desired text string is a name of a contact stored in the electronic device (Fig. 10, table "Tag Content", and Col. 2, lines 35 – 39, 45 – 51, and 56 – 67, Col. 12, lines 43 – 49, Grover; and Col. 2, lines 16 – 29, Siitonen).

Regarding Claim 51, Grover/Siitonen discloses a system, wherein the data associated with the name of the contact comprises at least one of a) a phone number, and b) an address (Fig. 10, table "Tag Content", and Col. 2, lines 35 – 39, 45 – 51, and 56 – 67, Col. 12, lines 43 – 49, Grover; and Col. 2, lines 16 – 29, Siitonen).

Regarding Claim 52, Grover/Siitonen discloses a system, wherein the plurality of text strings corresponds to names of a contact list stored in the electronic device, and the data associated with each of the names is stored together with the names in the table (Fig. 10, table “Tag Content”, and Col. 2, lines 35 – 39, 45 – 51, and 56 – 67, Col. 12, lines 43 – 49, Grover; and Col. 2, lines 16 – 29, Siitonen).

10. Claim 53 is rejected under 35 U.S.C. 103(a) as being unpatentable over Grover et al. (Grover hereinafter) (US 5,818,437), in view of Siitonen et al. (Siitonen hereinafter) (US 6,049,796), and further in view of Fook Loong Lo (Lo hereinafter) (US 2004/0095327).

Regarding Claim 53, Grover/Siitonen discloses all the limitation as discussed above including a system, wherein a first alphanumeric key of the plurality of keys corresponds to a number "2" and a subset "ABC" of the alphabet (Fig. 2A, Siitonen). However, Grover/Siitonen does not expressly disclose: wherein a second alphanumeric key of the plurality of keys corresponds to a number "3" and a subset "DEF" of the alphabet. On the other hand, Lo discloses: wherein a first alphanumeric key of the plurality of keys corresponds to a number "2" and a subset "ABC" of the alphabet, and further wherein a second alphanumeric key of the plurality of keys corresponds to a number "3" and a subset "DEF" of the alphabet (Fig. 1, items 102, and 103, Lo). It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify Grover/Siitonen by incorporating the step including: a second alphanumeric key of the plurality of keys corresponds to a number "3" and a subset "DEF" of the

alphabet, in the same conventional manner as disclosed by Lo's system. Skilled artisan would have found it motivated to use such a modification in order to allow any sequence of characters to be inputted (see: [0013], Lo).

***Response to Arguments***

11. Applicant's arguments that; "Grover fails to show a reduction/narrowing of search results" have been fully considered but they are not persuasive.

First, in response to applicant's argument that the references fail to show certain features of applicant's invention, it is noted that the features upon which applicant relies (i.e., "reduction/narrowing") are not recited in the rejected claim(s). Although the claims are interpreted in light of the specification, limitations from the specification are not read into the claims. See *In re Van Geuns*, 988 F.2d 1181, 26 USPQ2d 1057 (Fed. Cir. 1993).

Second, Grover/Siitonen does disclose the claimed limitation: using the second set of numeric strings to identify a corresponding second set of text string wherein the second set of text strings a) contains a fewer number of text strings than the first set of text strings, and b) includes the desired text strings (Col. 1, lines 53 – 58, Grover; and Col. 2, lines 51 – 67, Siitonen).

12. Applicant's arguments that; "the cited portions of Grover (as well as remaining portions) fail to disclose that the storing of this number is carried out based on "identifying depression of a first alphanumeric key on the keypad" and "identifying

depression of a second alphanumeric key on the keypad" have been fully considered but they are not persuasive.

Grover/Siitonen does disclose: identifying depression of a first alphanumeric key on the keypad, wherein the first alphanumeric key is selected to correspond to a first letter in the string of letters (Col. 4, lines 34 – 40, and Col. 6, lines 19 – 23, Grover; and Col. 6, lines 59 – 67, Siitonen); storing a first number that is the same as the unique number associated with the depressed first alphanumeric key (Fig. 10, table "Tag Content", and Col. 2, lines 35 – 39, 45 – 51, and 56 – 67, Col. 12, lines 43 – 49, and Col. 6, lines 33 – 39, Grover; and Col. 7, lines 8 – 10, Siitonen); identifying depression of a second alphanumeric key on the keypad, wherein the second alphanumeric key is selected to correspond to a second letter in the string of letters (Col. 5, lines 22 – 25, Grover; and Col. 6, lines 59 – 67, Siitonen); and storing a second number that is the same as the unique number associated with the depressed second alphanumeric key, wherein the second number is stored along with the first number, and wherein the combination of the first and second numbers comprises the string of numbers that enables a subsequent number search for recognizing a subsequent entry of the string of letters via the limited input keypad, and locating thereon, data associated with the recognized string of letters (Fig. 10, table "Tag Content", and Col. 2, lines 35 – 39, 45 – 51, and 56 – 67, Col. 12, lines 43 – 49, Grover; and Col. 7, lines 8 – 10, Siitonen).

## *Conclusion*

Any inquiry concerning this communication or earlier communications from the examiner should be directed to GIOVANNA COLAN whose telephone number is (571)272-2752. The examiner can normally be reached on 8:30 am - 5:00 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, John Breene can be reached on (571) 272-4107. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Giovanna Colan
Examiner
Art Unit 2162
August 26, 2009

/John Breene/

Supervisory Patent Examiner, Art Unit 2162